FACT SHEET FOR STATE WASTE DISCHARGE PERMIT NO. ST-9231

PACIFIC AEROSPACE & ELECTRONICS, INC.

SUMMARY

Pacific Aerospace & Electronics, Inc. is seeking issuance of a State Wastewater Permit for discharge from two production processes, the water jet cutting line and the dye penetrent line. Pacific Aerospace & Electronics, Inc. operates under two Standard Industrial Classification Codes; SIC code, # 3499 Fabricated Metal Products and SIC code, # 3728 Aircraft Parts. The facility is listed as a Categorical 40 CFR Part 433 Metal Finishing Point Source industry and is subject to new source pre-treatment standards.

Pacific Aerospace & Electronics, Inc. has operated at its Wenatchee location for the last ten years. In 2002 the facility applied for a State Wastewater Discharge Permit, but cancelled plans to discharge. The facility reapplied in February of 2004 and is currently discharging under a Temporary discharge permit to the City of Wenatchee POTW.

The Permittee has requested a permit to discharge two waste streams; the water jet cutter waste stream and a not yet installed dye penetrent process that uses neutralized rinse water from the anodizing process. The facility plans to discharge wastewater from this process only when production exceeds evaporative capacity or the vessels.

The City of Wenatchee has agreed to allow the Permittee to discharge wastewater to its wastewater treatment facility subject to the 40 CFR Part 433 New Source Pretreatment Standards.

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PACIFIC AEROSPACE & ELECTRONICS, INC.

EXPIRATION DATE: FEBRUARY 28, 2010

INTRODUCTION

This fact sheet is a companion document to the draft State Waste Discharge Permit No. ST-9231. The Department of Ecology (the Department) is proposing to issue this permit, which will allow discharge of wastewater to the Wenatchee Publicly Owned Treatment Works, (POTW). This fact sheet explains the nature of the proposed discharge, the Department's decisions on limiting the pollutants in the wastewater, and the regulatory and technical bases for those decisions.

Washington State law (RCW 90.48.080 and 90.48.160) requires that a permit be issued before discharge of wastewater to waters of the State is allowed. This statute includes commercial or industrial discharges to sewerage systems operated by municipalities or public entities which discharge into public waters of the State. Regulations adopted by the State include procedures for issuing permits and establish requirements which are to be included in the permit (Chapter 173-216 WAC).

This fact sheet and draft permit are available for review by interested persons as described in Appendix A--Public Involvement Information.

The fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in these reviews have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's response. The fact sheet will not be revised. Changes to the permit will be addressed in Appendix C -- Response to Comments.

GENERAL INFORMATION				
Applicant	Pacific Aerospace & Electronics, Inc.			
Facility Name and Address	Pacific Aerospace & Electronics, Inc. 430 Olds Station Rd. Wenatchee, WA 98801			
Type of Facility:	Manufacturing, Metal Finishing			
Facility Discharge Location	Latitude: 47° 27' 47" N Longitude: 120° 19' 35" W			
Treatment Plant Receiving Discharge	Wenatchee: Publicly Owned Treatment Works, (POTW)			
Contact at Facility	Name: Shaun McGuire Telephone #: 509-667-9600			
Responsible Official	Name: Shaun McGuire Title: Director of Environmental Compliance Address: Same as facility Telephone #: 509-667-9600 FAX # 509-667-9696			

BACKGROUND INFORMATION

DESCRIPTION OF THE FACILITY

History

Pacific Aerospace & Electronics Inc. has operated at the Wenatchee location as a non-discharging facility for the last ten years. In 2002 the business applied for a State Wastewater Discharge Permit, but then cancelled plans to discharge. A new application was submitted in March of 2004. A Temporary Permit was subsequently issued for discharge to the City of Wenatchee POTW.

Industrial Processes

The facility operates under two Standard Industrial Classification Codes; SIC code, # 3499 Fabricated Metal Products and SIC code, # 3728 Aircraft Parts and Equipment. The industry is a 40 CFR Part 433 Metal Finishing Point Source Categorical Industry. The facility, depending upon the product, anodizes with non-precious and precious metals, paints, dye tests and cuts

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aluminum alloy, steel and titanium parts for avionic connectors and housings. Metal is cut with a water abrasive jet system and conventional machining.

Treatment Processes

The Permittee has applied for a permit for discharge of two waste streams; the water jet cutter waste stream and a, not yet installed, dye penetrent process that uses neutralized rinse water from the anodizing process. The Permittee has requested that dye penetrent waste stream be permitted for discharge in the event of an emergency situation where winter use of the evaporators at the lowest point of efficiency is coupled with a simultaneous increase in production. Presently all of the anodizing waste is evaporated and the sludge is shipped as hazardous waste. The facility plans to never discharge anodizing wastewater to the City. If at a later date the Permittee desires to discharge anodizing wastewater, a new permit to include the discharging anodizing wastewater must be obtained. Once the dye penetrent line is in operation, this waste will be evaporated separate from the anodizing waste. The water jet waste stream passes through a sedimentation basin prior to discharge to the POTW.

PERMIT STATUS

An application for a permit was received by the Department on March 11, 2004 and accepted by the Department on May 13, 2004.

The facility was last inspected on June 18, 2004 in connection with a pre-permit meeting with representatives of Pacific Aerospace and the City of Wenatchee.

WASTEWATER CHARACTERIZATION

Both the water jet cutting wastewater and the dye penetrent waste stream are regulated under 40 CFR 433.17. The concentration of pollutants in the discharge was reported in the permit application. Since the time of application the Permittee has been engaged in adapting pretreatment processes to bring down the concentration level of selected metals to achieve the more stringent contract limits. Table 1 contains the concentrations as reported in the original application and the concentrations achieved following the addition of settling tanks and retooling. The proposed wastewater discharge is characterized for the following parameters:

TABLE 1
Wastewater Characterization Outfall # 001 – Water Jet Cutting

Parameter	Original Characterization	Characterization settling tanks added	Characterization with new tooling
BOD_5	11.2 mg/L	N/A	N/A
COD	20.5 mg/L	N/A	N/A
TSS	350 mg/L	N/A	N/A
TDS	82 mg/L	N/A	N/A
pH Std. Units	7.44 std. units	N/A	N/A
Copper	51.7 μg/L	2 μg/L	85.6 µg/L
Arsenic	< 2.0 µg/L	$< 2.0 \mu\text{g/L}$	$< 2.0 \mu g/L$
Cadmium	< 0.3 µg/L	< 0.3 μg/L	< 0.3 µg/L
Chromium	39.4 μg/L	4.7 μg/L	83.4 µg/L
Lead	1.3 μg/L	0.5 μg/L	1.2 μg/L
Mercury	< 0.3 μg/L	N/A	N/A
Aluminum	11.8 mg/L	N/A	N/A
Nickel	1,700 µg/L	10 μg/L	50.9 μg/L
Selenium	< 5.0 μg/L	N/A	N/A
Zinc	281 μg/L	148 μg/L	90 μg/L
Arsenic	< 0.002	<0.002 μg/L	<0.002 µg/L

The increases observed with the copper and chromium parameters after retooling may be an artifact of the metallurgy of the retooled components used at that time. The Permittee was focused on reductions of zinc and nickel in the discharge with the retooling.

The data in Table 2 provided by the Permittee was based on data obtained from another dye penetrent line owned by the Permittee at another location.

TABLE 2
Wastewater Characterization Outfall # 002 – Dye Penetrent

Parameter	Characterization Average	Parameter	Characterization Average
BOD_5	< 5 mg/L	Mercury	$< 0.3 \mu g/L$
COD	< 5 mg/L	Molybdenum	< 11.0 µg/L
TSS	5 mg/L	Copper	240 μg/L
TDS	54 mg/L	Nickel	12.4 μg/L
pH Std. Units	4.11	Selenium	$< 5.0 \mu g/L$
Arsenic	$< 2.0 \mu g/L$	Silver	$< 4.7 \mu g/L$
Cadmium	$< 0.3 \mu g/L$	Zinc	244 μg/L
Chromium	14.5 μg/L	Lead	3.6 μg/L

PROPOSED PERMIT LIMITATIONS

State regulations require that limitations set forth in a waste discharge permit must be based on the technology available to treat the pollutants (technology-based) or be based on the effects of the pollutants to the POTW (contract limits). Wastewater must be treated using all known, available, and reasonable methods of prevention, control and treatment (AKART) and not interfere with the operation of the POTW.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS

All waste discharge permits issued by the Department must specify conditions requiring AKART of discharges to waters of the State (WAC 173-216-110).

In order to protect the Wenatchee POTW from pass-through, interference, concentrations of toxic chemicals that would impair beneficial or designated uses of sludge, or potentially hazardous exposure levels, limitations for certain parameters are necessary. The limitations of this permit are based on 40 CFR Part 433 New Source Pretreatment Limits.

As per its sewer use ordinance, the City has agreed that local limits established by the City of Wenatchee are to be waived due to the low volumes of wastewater discharged to the City. The Permittee is working closely with the City and has been largely successful in bringing its wastewater into compliance with the more stringent local limits. Copper and zinc are the only parameters with which the Permittee is still at risk of violating the local limits. The City and Permittee believe that given the expected low mass loadings to the POTW, the stringent local limits based on concentration are impractical. This could subject the Permittee to unnecessary violations. Therefore at this time, the City has approved the Permittee to follow the 40 CFR Part 433 New Source Pretreatment Limits. Should the City at a later date decide the more stringent local limits are appropriate; the enforceable limitations of the permit can be changed either by permit modification or at the time of permit renewal.

CATEGORICAL LIMITS

TABLE 3 Categorical Limits

	40 CFR Part 433 Categorical Limits		
Parameter	Average Monthly	Maximum Daily	
Cadmium in mg/L	0.07	0.11	
Chromium in mg/L	1.71	2.77	
Copper in mg/L	2.07	3.38	
Cyanide in mg/L	0.65	1.2	
Lead in mg/L	0.43	0.69	
Nickel in mg/L	2.38	3.98	
Zinc in mg/L	1.48	2.61	
Silver in mg/L	0.24	0.43	
Total Toxic Organics	No limit promulgated	2.13 1	

¹ The Permittee will be required to submit an affidavit as per 40 CFR Part 433 that TTO is not used in their process annually.

MONITORING REQUIREMENTS

Monitoring, recording, and reporting are specified to verify that the treatment process is functioning correctly, and that effluent limitations are being achieved (WAC 173-216-110).

The monitoring schedule is detailed in the proposed permit under Special Condition S2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

According to the Permittee silver and toxic organics including phenols are not expected in the wastewater from either the water jet cutting process or dye penetrent testing. Total Toxic Organics, TTO and silver are categorical listed parameters and therefore are required to be monitored. TTO monitoring may be replaced with certification on the part of the Permittee in accordance with 40 CFR 433.12 requirements.

The analytical methods employed must be sensitive enough to accurately determine the concentration of a given parameter at very low concentrations. For lead and zinc the City has selected either EPA method 200.8 or Standard Methods for Wastewater Analysis, method 3120b.

Special Condition S2.E allows the Permittee to request a reduction in monitoring following 24 consecutive sampling events. The Department in consultation with the City may grant a reduction in monitoring on a parameter by parameter basis, if the data support a reduction.

OTHER PERMIT CONDITIONS

REPORTING AND RECORDKEEPING

The provisions of Special Condition S3 are based on the authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges (WAC 173-216-110 and 40 CFR 403.12 (e),(g), and (h)).

OPERATIONS AND MAINTENANCE (O&M)

The proposed permit contains Special Condition S5. as authorized under Chapter 173-240-150 WAC and Chapter 173-216-110 WAC requires submittal of an O&M Manual. It is included to ensure proper operation and regular maintenance of equipment, and to ensure that adequate safeguards are taken so that constructed facilities are used to their optimum potential in terms of pollutant capture and treatment.

PROHIBITED DISCHARGES

Certain pollutants are prohibited from being discharged to the POTW. These include substances which cause pass-through or interference, pollutants which may cause damage to the POTW, the POTW collection system or harm to the POTW workers (Chapter 173-216 WAC) and the discharge of designated dangerous wastes not authorized by this permit (Chapter 173-303 WAC).

DILUTION PROHIBITED

The Permittee is prohibited from diluting its effluent as a partial or complete substitute for adequate treatment to achieve compliance with permit limitations.

SOLID WASTE PLAN

The Department has determined that the Permittee has a potential to cause pollution of the waters of the State from leachate of solid waste.

This proposed permit requires, under authority of RCW 90.48.080, that the Permittee develop and submit to the Department a Solid Waste Plan to prevent solid waste from causing pollution of waters of the State. The plan must also be submitted to the contract solid waste permitting agency for approval, if required by contract ordinance.

The Permittee is in possession of a State Hazardous Water Permit # WA-0000072991 for the removal of residual solids taken from the wastewater evaporators.

SPILL AND SLUG DISCHARGE PREVENTION AND CONTROL PLAN

The Department has determined that the Permittee stores a quantity of chemicals that have the potential to cause water pollution if accidentally released. The Department has the authority to require the Permittee to develop best management plans to prevent this accidental release under section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and RCW 90.48.080.

In addition, the Department has determined that the Permittee has the potential for a batch discharge or a spill that could adversely affect the POTW; therefore, a slug discharge control plan is required (40 CFR 403.8 (f)).

The proposed permit requires the Permittee to develop and implement a combined Spill and Slug Discharge Prevention and Control Plan for preventing the accidental release of pollutants to State waters and/or the POTW for minimizing damages if such a discharge occurs.

GENERAL CONDITIONS

General Conditions are based directly on State laws and regulations and have been standardized for all industrial waste discharge to POTW permits issued by the Department.

Condition G1. requires responsible officials or their designated representatives to sign submittals to the Department. Condition G2. requires the Permittee to allow the Department to access the treatment system, production facility, and records related to the permit. Condition G3. specifies conditions for modifying, suspending or terminating the permit. Condition G4. requires the Permittee to apply to the Department prior to increasing or varying the discharge from the levels stated in the permit application. Condition G5. requires the Permittee to construct, modify, and operate the permitted facility in accordance with approved engineering documents. Condition G6. prohibits the Permittee from using the permit as a basis for violating any laws, statutes or regulations. Conditions G7. and G8. relate to permit renewal and transfer. Condition G9. requires the Permittee to control production or wastewater discharge in order to maintain compliance with the permit. Condition G10 prohibits the reintroduction of removed pollutants into the effluent stream for discharge. Condition G11. requires the payment of permit fees. Condition G12. describes the penalties for violating permit conditions.

PUBLIC NOTIFICATION OF NONCOMPLIANCE

A list of all industrial users which were in significant noncompliance with Pretreatment Standards or Requirements during any of the previous four quarters may be annually published by the Department in a contract newspaper. Accordingly, the Permittee is apprised that noncompliance with this permit may result in publication of the noncompliance.

RECOMMENDATION FOR PERMIT ISSUANCE

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics. The Department proposes that the permit be issued for five years.

REFERENCES FOR TEXT AND APPENDICES

Washington State Department of Ecology.

Laws and Regulations (http://www.ecy.wa.gov/laws-rules/index.html)

Permit and Wastewater Related Information (http://www.ecy.wa.gov/programs/wq/wastewater/index.html

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APPENDIX A--PUBLIC INVOLVEMENT INFORMATION

The Department has tentatively determined to issue a permit to the applicant listed on page 1 of this fact sheet. The permit contains conditions and effluent limitations which are described in the rest of this fact sheet.

Public notice of application was published on July 15, 2004 in the Wenatchee World to inform the public that an application had been submitted and to invite comment on the issuance of this permit.

The Department will publish a Public Notice of Draft (PNOD) on November 22, 2004 in the Wenatchee World to inform the public that a draft permit and fact sheet are available for review. Interested persons are invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents are available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below. Written comments should be mailed to:

Water Quality Permit Coordinator
Department of Ecology
Central Regional Office
15 West Yakima Avenue, Suite 200
Yakima, WA 98902

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the thirty (30) day comment period to the address above. The request for a hearing shall indicate the interest of the party and reasons why the hearing is warranted. The Department will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-216-100). Public notice regarding any hearing will be circulated at least thirty (30) days in advance of the hearing. People expressing an interest in this permit will be mailed an individual notice of hearing.

Comments should reference specific text followed by proposed modification or concern when possible. Comments may address technical issues, accuracy and completeness of information, the scope of the facility's proposed coverage, adequacy of environmental protection, permit conditions, or any other concern that would result from issuance of this permit.

The Department will consider all comments received within thirty (30) days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from the Department by telephone, 509/457-7105, or by writing to the address listed above.

This permit was written by Richard Marcley.

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APPENDIX B--GLOSSARY

Ammonia—Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

Average Monthly Discharge Limitation—The average of the measured values obtained over a calendar month's time.

Best Management Practices (BMPs)--Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

 BOD_5 --Determining the Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD_5 is used in modeling to measure the reduction of dissolved oxygen in a receiving water after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the Federal Clean Water Act.

Bypass—The intentional diversion of waste streams from any portion of the collection or treatment facility.

Categorical Pretreatment Standards—National pretreatment standards specifying quantities or concentrations of pollutants or pollutant properties which may be discharged to a POTW by existing or new industrial users in specific industrial subcategories.

Compliance Inspection - Without Sampling--A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

Compliance Inspection - With Sampling--A site visit to accomplish the purpose of a Compliance Inspection - Without Sampling and as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Additional sampling may be conducted.

Composite Sample—A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be

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"time-composite" (collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots.

Construction Activity—Clearing, grading, excavation and any other activity which disturbs the surface of the land. Such activities may include road building, construction of residential houses, office buildings, or industrial buildings, and demolition activity.

Continuous Monitoring –Uninterrupted, unless otherwise noted in the permit.

Engineering Report—A document, signed by a professional licensed engineer, which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

Grab Sample—A single sample or measurement taken at a specific time or over as short period of time as is feasible.

Industrial User—A discharger of wastewater to the sanitary sewer which is not sanitary wastewater or is not equivalent to sanitary wastewater in character.

Industrial Wastewater—Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

Interference— A discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal and;

Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or contract regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), sludge regulations appearing in 40 CFR Part 507, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

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Contract Limits—Specific prohibitions or limits on pollutants or pollutant parameters developed by a POTW.

Maximum Daily Discharge Limitation—The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling.

Method Detection Level (MDL)--The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is above zero and is determined from analysis of a sample in a given matrix containing the analyte.

Pass-through— A discharge which exits the POTW into waters of the State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation), or which is a cause of a violation of State water quality standards.

pH—The pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

Potential Significant Industrial User--A potential significant industrial user is defined as an Industrial User which does not meet the criteria for a Significant Industrial User, but which discharges wastewater meeting one or more of the following criteria:

- a. Exceeds 0.5 % of treatment plant design capacity criteria and discharges <25,000 gallons per day or;
- b. Is a member of a group of similar industrial users which, taken together, have the potential to cause pass through or interference at the POTW (e.g. facilities which develop photographic film or paper, and car washes).

The Department may determine that a discharger initially classified as a potential significant industrial user should be managed as a significant industrial user.

Quantitation Level (QL)-- A calculated value five times the MDL (method detection level).

Significant Industrial User (SIU)--

- 1) All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N and;
- 2) Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blow-down

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wastewater); contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority* on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

Upon finding that the industrial user meeting the criteria in paragraph 2, above, has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the Control Authority* may at any time, on its own initiative or in response to a petition received from an industrial user or POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

*The term "Control Authority" refers to the Washington State Department of Ecology in the case of non-delegated POTWs or to the POTW in the case of delegated POTWs.

Slug Discharge—Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge to the POTW. This may include any pollutant released at a flow rate which may cause interference with the POTW.

State Waters—Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the State of Washington.

Stormwater—That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

Technology-based Effluent Limit—A permit limit that is based on the ability of a treatment method to reduce the pollutant.

Total Coliform Bacteria—A microbiological test which detects and enumerates the total coliform group of bacteria in water samples.

Total Dissolved Solids—That portion of total solids in water or wastewater that passes through a specific filter.

Total Suspended Solids (TSS)--Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

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Water Quality-based Effluent Limit—A limit on the concentration of an effluent parameter that is intended to prevent the concentration of that parameter from exceeding its water quality criterion after it is discharged into a receiving water.

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APPENDIX C--RESPONSE TO COMMENTS

No comments were received by the Department of Ecology.